



**Underground Storage
Tank
Remediation Project
at
Department of Defense
Housing Facility,
Novato, CA
June 24, 1998
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Presentation Outline

- Site Background
- Problem Statement
- Remedial Objectives
- Regulatory Requirements
- Technology Considerations
- Progress Review
- Exit Strategy
- System Expansion
- RAO/LTM/Site Closure



Base Background

- **DoD Housing Facility, Novato, California**
- **Formerly Hamilton Air Force Base**
- **25 miles north of San Francisco**
- **Navy acquired property in 1974**
- **554 Acre base adjacent to Hamilton Army Airfield**
- **1495 Housing Units for Military Personnel**
- **Operated by PWC San Francisco Bay**
- **Closed in September 1996 under BRAC III**



Site Background

- **Underground Storage Tanks (USTs) and associated piping removed prior to base closure**
- **PWC Service Station (957): 1-12,000 gal. Gasoline UST**
- **NEX Service Station (970): 3-10,000 gal. Gasoline USTs, 1-1,000 gal. waste oil UST**
- **Gasoline release detected in UST excavations adjacent to Buildings 957 and 970**



Site Background

- **GeoProbe™ and SCAPS investigations**
- **Dissolved hydrocarbon plumes commingled**
- **9 Groundwater monitoring wells initially installed**
- **Site map with contours produced for Investigation Report**
- **Corrective Measures Study evaluated remedial options**



Base map from ERM-West Inc., UST Investigation Report, September 2000



Site Description

- **NEX Service Station (970) area is 350 ft in length; 350 ft in width**
- **PWC Service Station (957) area is 250 ft in length; 350 ft in width**
- **Four Buildings on both areas**
- **Asphalt cover over entire area**
- **Limited security, No Base sentry**
- **Fence surrounds both areas**
- **Nearby Features include Day**
Care Center, Credit Union,



Problem Statement

- **Consider FOST schedule of late 1998**
- **Consider high interest for reuse of site**
 - **Public Sale**
 - **Public Benefit Conveyance (PCB)**
 - **Future use by Novato school board**
 - » **Administration offices**
 - » **School bus yard**
 - » **Vocational Center**



Problem Statement

- **Implement acceptable cleanup action to satisfy transfer goals**
- **Relieve the human health and the environmental concerns**
- **Relieve Regulatory Agency concerns**
- **Achieve Site Closure**



Remedial Objectives

- Satisfy regulatory criteria
- Focus initial efforts since large site
- Remove sufficient mass to achieve low risk concentrations for TPH/BTEX
- Evaluate methyl *tert*-butyl ether (MTBE) removal effectiveness
- Implement Remediation by **Natural Attenuation (RNA)**



Site Closure Approach

- **Risk-Based Approach**
 - **Cleanup Objectives
based on risk to human
health and the
environment**
- **Remediation by Natural
Attenuation**



Regulatory Context

- **Petroleum Site, CERCLA Exclusion**
- **Lead Agency: San Francisco Bay Regional Water Quality Control Board (RWQCB)**
 - **Site evaluated against RWQCB's low risk criteria**
 - **Potential exposure pathways and receptors dependent on intended future site use**



Regulatory Interaction

- **BCT Meetings**
- **RAB Meetings**
- **Lead Agency (RWQCB)**
 - **Remedial Investigation Reports**
 - **Quarterly Monitoring Reports**
 - **Monthly Technical Reports**